



File Code: 1950

Date: October 7, 2015

Dear Forest User,

The Forest Service in conjunction with the Montana Fish, Wildlife and Parks, Bureau of Land Management and Natural Resources and Conservation Service have a long history of cooperatively managing the Elkhorn Wildlife Management Unit within the Elkhorn Mountain range. Together with the help of the Elkhorn Restoration Committee, they have recognized the need to improve the wildlife habitat within the Elkhorn Mountains. The diversity of the both species and age class of the conifers within the Elkhorn Mountains has been slowly decreasing overtime. In addition conifers are colonizing within the traditional grass and shrublands, further decreasing the habitat quality within the mountain range. Therefore the Helena National Forest is proposing wildlife management activities in the Elkhorn Mountains. These treatments are designed to improve wildlife habitats by promoting forage, enhancing whitebark pine habitat and creating diversity in tree species and stand age classes in conifer stands. These treatments will collectively improve the available wildlife habitat in a portion of the Elkhorn Mountain range.

Description of Project Area

The Johnny Crow Wildlife Habitat Improvement project area is located in the Elkhorn Mountains approximately 10 air miles from Townsend, Montana. It is located in the Elkhorn Wildlife Management Unit on the Townsend and Helena Ranger Districts of the Helena National Forest primarily in the Crow Creek watershed, as well as Johnny's Gulch and Indian Creek drainages. Specific locations include Jenkins Gulch, the Tizer area, Poe Creek, and Slim Sam drainages.

The Elkhorn Mountains are an island mountain range, characterized by diversity in geologic formation, climate, soils, and topography which in turn supports a wide variety of ecosystems that comprise grasslands, shrublands, riparian vegetation and forests both coniferous and deciduous.

The Helena National Forest Plan emphasizes maintenance and enhancement of big game habitat for elk, moose, mountain goats, and mule deer in the Elkhorn Mountains. Non-game wildlife species are also emphasized.

The Elkhorn Mountains contain the 75,415 acre Elkhorn Wilderness Study Area with Additions Inventoried Roadless Area (IRA). The Inventoried Roadless Area name implies it is a wilderness study act area; however that designation was removed in September 1986, through a proposal signed by President Reagan. Even though the wilderness study area designation was removed, the Inventoried Roadless Area designation remains and the 2001 Roadless Area Rule applies to the Inventoried Roadless Area acres. Of the 75, 415 total acres of Inventoried Roadless area within the Elkhorn Mountains only 37, 052 acres are within the boundary of the project area.



The southern and eastern portions of the project area are dominated by shrub and grasslands, while the northern and western portions are dominated by Douglas-fir, sub-alpine fir, lodgepole, limber pine and whitebark pine can be found in the very north.

Please see attachment A for a project area map. The project area map shows the general areas within which the treatments will occur.

Purpose and Need

The Forest is working cooperatively with the Elkhorn Restoration Committee (ERC), a member of the Montana Forest Restoration Committee, to identify restoration needs in the Elkhorn Mountains, specifically the Crow Creek analysis area. In June of 2013 the Elkhorn Restoration Committee completed the *Restoration of Ecosystems in the Elkhorn Cooperative Management Area* which includes recommendations for restoration in the project area. These opportunities are based on assessing current conditions relative to conditions that may have been present under natural disturbance regimes.

Fires were a frequent occurrence in the Elkhorn Mountains before settlers arrived, and they still occur but not with the same frequency. Fires invigorate vegetation by removing buildups of downed trees, opening forested areas for other vegetation growth, and restoring nutrients back into soils. The full diversity of wildlife habitats (i.e. habitats that support elk, moose, mule deer, and mountain goat), has been compromised by the loss of vegetative diversity due, in part, to fire suppression.

There is ample evidence of conifer colonization onto grassland communities. Historically, the grasslands of the Elkhorn Mountains experienced a mean fire interval of 16 years with stand replacing fires considered the dominant fire severity type. The grasslands in the area evolved under this high frequency fire regime which generally confined tree growth to areas where understory fuels were sparse. Today the mean fire interval in grasslands in the Elkhorn Mountains is 251 years with an estimated 93 percent reduction in fire frequency since 1900.

At higher elevations whitebark pine has experienced high levels of mortality due to mountain pine beetle and white pine blister rust. Whitebark pine is considered a keystone species in that it is responsible for maintaining and increasing the biodiversity on the landscape. Whitebark pine is an important food source for a variety of wildlife species in the Elkhorn Mountains due to the high nutritional value of its seeds.

Also at higher elevations the development of age class diversity of other conifer species has stalled. Age-class diversity provides a mosaic of habitat types upon which several wildlife species depend. High quality elk habitat for example is determined by the interspersed types of vegetation which in turn provides large amounts of edge habitat important for elk cover and forage. Cassin's finches, a species of concern, prefer open coniferous forests with mature lodgepole pine.

The purpose and need for the proposed project is to maintain and enhance desired vegetative conditions that provide habitat for a variety of wildlife species. Specifically, project objectives are to:

- Improve forage on elk and mule deer winter and summer range through the removal of colonizing conifers in grass and shrublands;
- Enhance nesting habitat for bird species that rely on grass and shrubland habitats through the removal of conifers currently colonizing grass and shrublands;
- Increase riparian vegetation diversity for moose, mule deer, and cutthroat trout through the reduction of colonizing conifers in riparian areas;
- Promoting age class and tree species diversity within conifer stands in order to improve elk calving and summer habitat; and
- Encourage growth and expansion of whitebark pine through thinning and prescribed fire.

Project Development Considerations

Preliminary treatment areas were developed where habitat enhancement opportunities exist within portions of the Elkhorn Mountains. Treatment areas were screened such that designed treatments would be consistent with the Forest Plan direction as well as applicable laws and regulations. Weed infestations would be treated in this area as authorized under the 2007 Record of Decision for the Helena National Forest Noxious Weed Treatment Environmental Impact Statement. Ongoing integration of noxious weed management is expected to continue across this project area now and in the future.

Proposed Action

The project area encompasses about 66,899 acres of grasslands, shrublands, riparian areas, aspen stands and mature forests of which an estimated 13,525 acres are proposed for treatments. The proposed treatments include a combination of hand slashing conifer trees, (primarily less than 12 inch diameter-at-breast-height) and/or prescribed fire (depending on weather conditions).

Included in the project area is the Elkhorn Wilderness Study Area with Additions Inventoried Roadless Area. About 37,052 acres of the inventoried roadless area are within the project boundary of these acres a maximum of 6,046 acres are proposed for treatment (8 percent of the 75,415 acre inventoried roadless area).

The proposed treatments within the Inventoried Roadless Area were designed to maintain or improve the roadless character regarding diversity of the plant and animal communities, primarily through prescribed fire and hand slashing where needed to achieve overall objectives, while addressing the purpose and need of this project.

The project would maintain and/or restore the characteristics of ecosystem composition and structure by reducing conifer colonization. No commercial product would be removed, access would remain unchanged and no road construction, reconstruction or maintenance would occur. Primarily trees less than 12 inches diameter-at-breast-height (see *Hand Slashing in Grasslands* for a detail description of treatment and rationale) would be cut except where the felling of larger diameter trees is necessary to meet project objectives.

Summary of Proposed Activities

Design Criteria Common to All Treatments

- Trees would be left along roadways in order to provide screening for big game species such as elk, mule deer and moose.
- Noxious weeds will be treated per the 2007 Record of Decision for the Helena National Forest Noxious Weed Treatment Environmental Impact Statement prior to implementation;
- No ponderosa pine would be cut with any treatment. These trees would be protected and retained to the extent feasible in burning treatments.
- When aspen is encountered in any of the treatment areas, the aspen treatment prescription would be applied.
- Implementation of burns within treatment areas may vary slightly from what is mapped, +/- 10 percent total acres, to account for variability in results, but would not occur outside treatment boundaries. Review of adjustments would be done by appropriate specialists and line officers prior to implementation.

Objectives and Design Criteria for Treatment Unit Categories

Grasslands/Shrublands

Our goal is to maintain and enhance grass and shrublands by reducing the coarse surface fuels, reducing conifer colonization, and reinvigorating grass growth. We also intend on protecting and maintaining shrub communities present.

In order to accomplish the desired conditions within the grass and shrublands we will use hand slashing of colonizing conifers in grassland areas (see *Hand Slashing in Grasslands/Shrublands* treatment description below for more detail). We are not proposing to cut trees in forested inclusions (islands of mature timber within a grass or shrubland). In addition to hand slashing, prescribed fire, specifically broadcast burning would be used to accomplish the overall goals. Prescribed fire ignitions would be designed to avoid forested inclusions and limber pine stands to the extent feasible. Where this may be impractical, we would ensure fire effects are minimal in these areas (less than 10 percent mortality of trees greater than 12 inches diameter-at-breast-height).

Treatments would result in a 70 to 90 percent reduction of colonizing conifers within historic grasslands and increased forage production and vigor of the grasses. Additionally, up to 20 percent of shrublands would be burned to promote a mosaic pattern on the landscape.

Riparian/Wetland Habitats

Our goal is to improve riparian habitat by increasing vigor and distribution of willows and other riparian vegetation.

We propose accomplishing the above goal by removing competing conifers from within the historic extent of willow distribution and from within deciduous/shrub/forb riparian areas. Treatments in riparian/wetland habitats include *Hand Slashing to Promote Riparian/Wetland Habitats* and/or *Low Severity Prescribed Fire* through indirect ignition, meaning no active ignition within the riparian or

wetland however, fire may be allowed to creep into the habitat. Where feasible, we propose arranging slash barriers to limit browsing and/or grazing.

Aspen

We would like to maintain and/or improve aspen habitat by increasing aspen vigor, extent of the aspen distribution and we would like to promote uneven-aged character and active suckering within the stands.

Our main treatment tools would be to hand slash conifers and use prescribed fire only where needed to promote regeneration and growth. In addition where feasible we would arrange slash barriers limit browsing damage to aspen.

Our desired future condition is to have between 500 and 1000 suckers per acre within aspen habitat. In order to meet our goals we propose to reduce conifer colonization in and up to 20 feet around aspen clones by 90 percent.

Forest Stand Age Class and Species Diversity

We propose to promote age class diversity within existing conifer stands by using mixed severity prescribed fire. This type of prescribed fire would create a mosaic patchwork of differing age and size classes. Tree species and size class that would be affected would be site-specific. Landscapes characterized by fires with high variability in timing, intensity, pattern, and frequency tend to have the greatest diversity in ecosystem components and animal species. Prescribed fire treatments will result in patterns of habitat that are desirable to elk and mule deer (focal species in the Elkhorn Mountains) – i.e. early successional habitats where forbs, grasses, and shrubs dominate interspersed with cover.

This would mean mixed severity burning of 40 to 60 percent of proposed treatment units, maximizing stand replacement effects. It is acceptable to have one or multiple patches, maximizing patch size to the extent feasible to emulate natural regimes. The remainder of the unit would be unburned.

Project implementation would result in (1) changes in availability of habitat patches and diversity within them, (2) changes in the composition and structure of larger areas which provide the spatial context for habitat patches, and (3) changes in connections among habitat patches. Landscape diversity is expected to increase in turn providing wildlife species increased opportunities to select from a variety of habitat conditions and successional stages. Additional benefits of creating new age class patches would be to diversify surface fuel loadings which in turn enhance regeneration success and resilience over time.

Five-needle Pine

Due to their importance to wildlife we propose to enhance 5-needle pines within the project area. Specifically we would like to enhance existing whitebark pine seedlings and saplings through removal of competing conifers (primarily lodgepole pine and subalpine fir); and enhance existing healthy limber pine stands (i.e. greater than or equal to 100 trees per acre) through removal of competing conifers (primarily Rocky Mountain juniper and Douglas-fir).

All competing conifers within existing whitebark and limber pine stands would be removed through hand slashing (see hand slashing for 5-needle pine treatment description below for more detail). Any prescribed fire treatments in the grasslands would be designed to avoid these limber pine stands.

Treatments would promote overstory canopy development conducive to large cone crops.

Treatment Definitions

Mixed Severity Burn:

Prescribed fire in lodgepole pine forest or forested areas to create a mosaic of new age classes and reduced fuel loadings. Mortality patch size and distribution would be dictated by stand and burning conditions, with ignitions generally anchored at natural openings. The burn would occur on 40 to 60 percent of the treatment unit. Hand slashing as needed would occur to prepare the fuel-bed and enhance containment lines. No active ignition on slopes greater than 35 percent and retain 70 to 80 percent ground cover. Some woody debris would be consumed, while retaining a minimum of 10 tons per acre in moist sites and 5 tons per acre in dry sites. Burned patches are expected to regenerate over time from the seed sources in unburned areas, creating a new age class. In the largest patches, the interior may take over a decade to regenerate.

Low Severity Burn:

Prescribed fire in grass and shrubland areas with low severity to reduce conifer colonization and stimulate grass growth. Burn would cover 60 to 80 percent of the area causing mortality on 70 to 90 percent of the colonization (defined as conifers greater than 12 inches diameter-at-breast-height), reduce duff fuel loading while retaining 70 to 80 percent ground cover and reduce coarse woody debris while retaining at least 5 tons per acre on dry sites and 10 tons per acre on moist sites. Forested inclusions would generally be retained; overall direct and indirect mortality of trees greater than 12 inches diameter-at-breast-height would be less than 10 percent. No active ignition on slopes greater than 35 percent. Hand slashing as needed of small diameter trees 12 inches diameter-at-breast-height to prepare the site for burning and achieve conifer colonization reduction goals would also occur.

Broadcast Burn:

The goal is to reduce slash and prepare the site for regeneration. It is a moderate intensity fire where direct and indirect mortality of leave trees is less than 10 percent (reserve, shelter or seed trees left are minimal and a high priority to protect). Slashing as needed would occur to limit intensity and create a fuelbed for burning. The goals are to reduce fine woody debris (greater than 3 inch diameter), reduce duff fuel loadings, expose five to 25 percent mineral soil, and retain most coarse woody debris (greater than 3 inch diameter) for nutrient cycling, seedling microsites and wildlife habitat.

Hand Slashing:

Cutting of non-desired conifer trees with chainsaws. Slash would be lopped and scattered to be within 18 to 24 inches of the ground surface. A general criterion of *less than 12 inches diameter-at-breast-height* was chosen due to the need to pull the colonizing conifers back to the tree line and/or the

forested inclusion, in addition it was felt that these trees provided a continuing seed source and would prohibit the overall goals of the treatments.

- a. *Hand Slashing in Grasslands*: Either as a stand-alone treatment or prior to low severity burning, slashing would focus on achieving conifer colonization objectives. Seventy to 90 percent of conifers other than five-needled pines and ponderosa pine less than 12 inches diameter-at-breast-height would be cut. No trees would be cut in forested inclusions. Tree cutting of conifers less than 12 inches diameter-at-breast-height in forested inclusions would be specified; these areas would be identified prior to implementation and articulated in site specific prescriptions. No trees greater than 12 inches diameter-at-breast-height would be cut in any area unless a site-specific determination is made to remove these trees to further the objectives in grasslands.
- b. *Hand Slashing to Promote Riparian/Wetland Habitats*: This treatment would be done in riparian areas and/or wetland habitats to reduce conifer colonization. Generally all conifers 12 inches diameter-at-breast-height would be cut in these areas.
- c. *Hand Slashing to Promote Aspen*: This treatment would be done in areas with aspen and within 20 feet outside of clones to reduce conifer colonization. Generally all conifers 12 inches diameter-at-breast-height would be cut in these areas.
- d. *Hand Slashing in Forest Age Class & Species Diversity*: This treatment would occur prior to mixed severity burning, slashing would focus on cutting conifers other than 5-needled pines and ponderosa pine to facilitate burning and control lines, only where necessary to achieve objectives. Generally only trees less than 12 inches diameter-at-breast-height would be cut, except where the felling of larger diameter trees is necessary, i.e. felling of a hazardous tree for safety.
- e. *Hand Slashing for Five-needle pines*: This treatment would be done in whitebark pine and limber pine stands. All competing conifers would be cut except for ponderosa pine.

Hand Piling:

Where necessary to meet objectives, such as areas of high fuel concentrations or along fire control lines, hand slashed material would be handpiled and burned.

Treatment Summary

The following table provides a summary of the proposed treatment activities within the Johnny Crow project area:

Table 1: Summary of activities proposed in the Johnny Crow Project Area

Proposed Vegetation Management Activities	Estimate of Acres to be Treated
Grassland/Shrublands	9,565
Riparian/Wetland/Aspen Habitats	460
Forest Stand Age Class and Species Diversity	3,000
Five-Needle Pine	500
Total vegetation management acres	13,525

Management Areas

Proposed treatments are appropriate based on land classifications in the Helena National Forest Plan. Management areas present in the treatment units are E1, E2, and E3 and corresponding management goals are listed below.

Table 2: Applicable Helena National Forest Management Areas and Goals

Management Area	Management Goals
Elkhorns 1	Emphasize direct habitat improvement through techniques such as prescribed fire.
Elkhorns 2	Optimize mountain goat and summer elk habitat, maintain or enhance moose and mule deer summer and fall habitat, to the extent that mountain goat and summer elk habitat quality is not diminished.
Elkhorns 3	Implement wildlife habitat improvement practices, including prescribed fire and timber manipulation, to maintain and enhance aspen and willow regeneration and other forested areas, for wildlife habitat.

Management Considerations and Preliminary Extraordinary Circumstances

The Districts are evaluating whether or not this action may be categorically excluded from further analysis and documentation in an EA or EIS, and if the preliminary results indicate no extraordinary circumstances exist, then does this action fall within the categories established by the Secretary at 7 CFR part 1b.3 or a category listed in sections 36 CFR 220.6(d) or (e). The category being considered is 36 CFR 220.6(e)(6) - timber stand and/or wildlife habitat improvement activities that do not include the use of herbicides or do not require more than 1 mile of low standard road construction. Information you provide would help in determining whether a category would be appropriate or what the best option would be to accomplish the purpose for this project. Our preliminary assessment of resource conditions outlined under 36 CFR 220.6(b) has not identified any extraordinary circumstances that would warrant further analysis and documentation in an EA or an EIS. Results of this initial analysis are summarized below.

Threatened, endangered, or sensitive species or their critical habitat: proposed activities are not expected to have any adverse effects on threatened, endangered, or sensitive species. Whitebark pine is present within the project area, however, one of the main objectives of this project is to enhance whitebark pine so treatments are designed to improve species viability. The appropriate Biological Assessments and/or Biological Evaluations for fish, terrestrial animals, and plants are being completed.

Flood plains, wetlands, or municipal watersheds: no project activities would occur in any flood plains or municipal watersheds. Treatments along streams and within wet meadows are designed to enhance these habitats.

Congressionally designated areas, such as wilderness, wilderness study areas, or national recreation areas: no project activities are proposed in any designated or proposed wilderness, wilderness study areas, or national recreation area.

Inventoried Roadless Area or Potential Wilderness Area: Included in the project area is a portion of the Elkhorn Wilderness Study Area with Additions Inventoried Roadless Area. Proposed activities are designed to maintain or restore the characteristic of ecosystem composition and function and would maintain or improve roadless character with the anticipated diversity of plant and animal communities after treatment. No commercial product would be removed, only trees 12 inches diameter-at-breast-height or less would be cut, access management would remain unchanged, and no road construction, reconstruction or maintenance would occur. The project would not affect the existing classes of dispersed recreation; traditional or cultural properties, or other locally identified unique characteristics.

Research natural areas: the area where the proposed activities would occur is not part of any research natural areas.

American Indians and Alaska Native religious or cultural sites: cultural sites would not be impacted by the proposed action. There are no conflicts anticipated with traditional use or other concerns.

Archeological sites, or historic properties or areas: portions of the project area have been previously surveyed for archeological resources. Surveys will continue and be completed prior to implementation. While we do not foresee any issues at this time, undocumented archeological resources found during project implementation would be reported to a Forest Service archaeologist and, if necessary, project design would be modified to avoid any impacts to those resources.

This mailing covers 36 CFR 220.4(e) where scoping is required for all Forest Service proposed actions, including those that would appear to be categorically excluded from further analysis and documentation in an environmental assessment (EA) or an environmental impact statement (EIS) requirements.

How You Can Be Involved

This letter provides those interested in or affected by this proposal an opportunity to make their concerns known prior to a final decision by the Responsible Officials. Comments would be most useful if received by November 5, 2015. It is helpful if the comment contains the following information:

- Include your name and address;
- Title of the project;
- Specific comments on the proposed action, along with supporting reasons that the Responsible Officials should consider in reaching a decision; and
- Your signature or other verification of identity upon request (identification of the individual or organization who authored the comment(s) is necessary for appeal eligibility).

Comments received in response, including names, addresses, email addresses, and phone numbers of those who comment, will be considered part of the public record and will be available to the public.

The Responsible Officials for this decision are the Townsend and Helena District Rangers; both District Rangers will sign the decision. The majority of the project area is within the Townsend Ranger District, and the primary Point of Contact for this project is Corey Lewellen, Townsend District Ranger. Written comments may be submitted at the Townsend District Office, 415 South Front Street, Townsend, MT 59644. Office business hours for submitting hand-delivered comments are: 8:00 a.m. to 4:30 p.m. Monday through Friday excluding holidays. Electronic comments must be submitted to comments-northern-helena-townsend@fs.fed.us. The subject line must contain "Johnny Crow Habitat Improvement Project." For electronically submitted comments, the sender should receive an electronic acknowledgement from the Agency as confirmation of receipt. If the sender does not receive an acknowledgement of the receipt of comments, it is the sender's responsibility to ensure timely receipt by other means. Please indicate if you would like to be removed from the mailing list.

Those who comment during the project's comment period will receive email notification when the project's decision memo is signed. This decision memo will be posted to the Helena National Forest projects webpage available here: <http://www.fs.usda.gov/projects/helena/landmanagement/projects>. If you are interested in receiving a paper copy in the mail, please let us know by phone, email, or by stopping by the Townsend office. For more project information, please see the Helena National Forest projects webpage or call Corey Lewellen at 406-266-3425. We look forward to receiving your comments and will consider them in helping to determine the best course of action to improve the wildlife habitat in this area.

Sincerely,



COREY LEWELLEN

Townsend District Ranger
Helena National Forest

Enclosures: Attachment A – Proposed Project Map